

REMARKS

Claim 2 is cancelled. No claims are added by amendment. Claim 28 is allowed, claims 1-8 are rejected, and claims 9-27 are objected to. Accordingly, claims 1 and 3-27 are at issue.

On page 1, the examiner makes final the restriction requirement. The office action states: “For clarification purposes, claims 1-28 are pending in the application, claims 29-57, 67-76 are non-elected, and claims 58-66, 77-79 are withdrawn from consideration.” Applicants wish to clarify that claims 58-66 and 77-79 were intended to be non-elected claims. In response to the restriction requirement, Applicants stated “Applicants respectfully traverse in part and **accept in part the restriction requirement**. . . Applicants agree to withdraw claims 58-66 and 77-79 from further examination **in view of the present restriction requirement**.” Claims 58-66 and 77-79 were not cancelled, but designated as non-elected claims by stating that the restriction requirement was accepted with respect to these claims.

Claims 1-8 stand rejected under 35 U.S.C. §102(e) as being anticipated by Yeldener, U.S. Patent No. 5,890,108. Yeldener appears to involve conventional pitch estimation using a single pitch tracking path. Yeldener is based on the assumption that the pitch will not vary much across consecutive frames. See Yeldener, col. 11, ll. 41-46. In contrast, claim 1 recites, *inter alia*, calculating a cumulative error function **for a plurality of paths**, each path including a pitch candidate from a first frame and a pitch candidate from the second frame. Accordingly, the inventive method claims calculating the cumulative error function for a plurality of paths to arrive at pitch estimation. See, e.g., Application, p. 15 (describing a trellis structure to do pitch tracking in plurality of paths to arrive at the pitch estimates). Using a plurality of paths helps reduce the algorithmic delay in the encoder. Because Yeldener does not disclose all of the

elements of claim 1, claim 1 is not anticipated by Yeldener and is believed allowable.

Additionally, claims 3-8, which depend from claim 1, are also believed allowable.

Claim 6 further recites that a cumulative error function is calculated for all possible paths.

Claim 6 depends from claim 5, which includes limits to the number of pitch candidates. Because Yeldener does not disclose a plurality of paths, it does not disclose calculating a cumulative error function for all possible paths of a plurality of paths for a limited number of pitch candidates.

Claim 6 is believed not anticipated for this additional reason.

Claims 9-27 stand objected to as being dependent upon a rejected base claim. However, claim 1 is believed allowable as set forth above. Accordingly, it is respectfully requested that the objection to claims 9-27 be removed.

If the examiner finds that there are any outstanding issues which may be resolved by a telephone interview, the Examiner is invited to contact the undersigned at the below listed number.

Respectfully submitted,

WELSH & KATZ, LTD.

By 
Walter J. Kawula, Jr.

Registration No. 39,724

March 5, 2004

WELSH & KATZ, LTD.
120 S. Riverside Plaza, 22nd Floor
Chicago, Illinois 60606
Phone: (312) 655-1500
Fax: (312) 655-1501